

PLANNING MANAGER DECISION

DATE: October 27, 2015

FILE NO.: MISC-15-09

- REQUEST: Request for a Flood Management Area (FMA) permit for two additions to an existing house at 5650 River Street
- PLANNER: Darren Wyss, Associate Planner



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GENERAL INFORMATION

OWNER:	Trent and Mi Lynn Crollard 5650 River St. West Linn, OR 97068
APPLICANT:	David L. Alt III/9 th Street Studio 10317 NE 9 th St. Vancouver, WA 98664
SITE LOCATION:	5650 River St.
SITE SIZE:	0.44 acres
LEGAL DESCRIPTION:	Assessor's Maps and Tax Lot – 22E30AC01608
COMP PLAN DESIGNATION:	Low Density Residential
ZONING:	R-10, Single-Family Residential Detached
APPROVAL CRITERIA:	Community Development Code (CDC) Chapters 11, 27, and 99
120-DAY RULE:	The application declared complete on September 21, 2015. The 120-day period ends on January 16, 2016.
PUBLIC NOTICE:	Notice was mailed to property owners within 300 feet of the subject property and all Neighborhood Associations on September 28, 2015. A sign was placed on the property on October 1, 2015. The notice was also posted on the City's website. Therefore, public notice requirements of CDC Chapter 99 have been met.

EXECUTIVE SUMMARY

The application is for a Flood Management Area permit, as required per CDC Chapter 27, to construct new additions to the existing residence at 5650 River St. The property is zoned R-10 and located in the Bolton Neighborhood. A portion of the property is located within the 100-year floodplain.

Properties on the south side of River Street are subject to flooding at times of 100-year flood occurrence and were inundated during the 1996 flood event.

The applicant proposes a 21 sq. ft. front entry addition that will utilized the existing porch slab and a 1,051 sq. ft. rear addition that will be constructed above a crawlspace. The finished floor elevations will be one foot above the base flood elevation of 48 feet. The rear addition crawlspace will be located below the base flood elevation and required openings will be provided flood storage and conveyance. A small amount of fill is proposed within the crawlspace and will be offset by excavation on the property.

The applicable CDC Chapters include:

- Chapter 11, Single-Family Residential Detached R-10
- Chapter 27, Flood Management Areas
- Chapter 99, Procedures for Decision Making: Quasi-Judicial

Public comments:

Staff received no written comments.

DECISION

The Planning Manager (designee) approves this application (MISC-15-09), based on: 1) the findings submitted by the applicant, which are incorporated by this reference, 2) supplementary staff findings included in the Addendum below, and 3) the addition of conditions of approval below. With these findings, the applicable approval criteria are met. The conditions are as follows:

1. FEMA Elevation Certificate. The applicant shall submit a completed and signed FEMA

Elevation Certificate to the Planning Dept. before the city will inspect the framing of the additions.

2. <u>Crawlspace Flood Venting</u>. The applicant shall provide a minimum of one square inch of flood vent openings in crawlspace walls for each square foot of crawlspace area for conveyance and storage of flood waters. The flood vent openings shall be provided on at least two sides of the foundation to allow entry and exit of flood waters.

3. <u>Crawlspace Flood Venting</u>. The applicant shall provide documentation of as-built elevations for the interior and exterior (lowest adjacent) grades of the crawlspace that are located below base flood elevation. The applicant's engineer shall certify the interior crawlspace is no more than two feet below the exterior (lowest adjacent) grade and the height of the crawlspace does not exceed four feet from the interior grade to top of crawlspace foundation at any point.

4. <u>Crawlspace Flood Venting</u>. The applicant shall certify the bottom of flood vent openings are no higher than one foot above the highest grade, whether that be the interior or exterior (lowest adjacent) grade.

5. <u>Elevation of Utilities.</u> The applicant shall locate all electrical, heating, ventilation, air conditioning, plumbing, or other building utility systems above base flood elevation or provide certification that the system used is a water tight enclosure.

The provisions of the Community Development Code Chapter 99 have been met.

Darren Wyss, Associate Planner

October 27, 2015 DATE

Appeals to this decision must be filed with the West Linn Planning Department within 14 days of the mailing date listed below. The cost of an appeal is \$400. The appeal must be filed by an individual who has established standing by submitting comments prior to the date identified in the public notice. Appeals will be heard by City Council.

Mailed this 27th day of October, 2015.

Therefore, the 14-day appeal period ends at 5 p.m., on November 10, 2015.

ADDENDUM APPROVAL CRITERIA AND FINDINGS MISC-15-09

Staff recommends adoption of the findings for approval contained within the applicant's submittal, with the following additions:

CHAPTER 11, SINGLE-FAMILY RESIDENTIAL DETACHED R-10

11.030 Permitted Uses

The following are uses permitted outright in this zoning district 1. Single-family detached residential unit.

Staff Finding 1: The property contains one single-family detached residential home. The applicant does not propose any change of use. This criterion is met.

11.070 Dimensional Requirements, Uses Permitted Outright and Uses Permitted Under Prescribed Conditions

Except as may be otherwise provided by the provisions of this code, the following are the requirements for uses within this zone:

1. The minimum lot size shall be 10,000 square feet for a single-family detached unit. (...)

6. The maximum building height shall be 35 feet, except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.

Staff Finding 2: The applicant proposes no changes to the lot size or dimensions. The existing house meets set-back and height requirements, as do the proposed additions. These criteria are met.

7. The maximum lot coverage shall be 35 percent.

Staff Finding 3: The lot is 19,001 sq. ft. and the total coverage after the two additions will be 4,440 sq. ft. for 23.4% coverage. This criterion is met.

(...)

9. The floor area ratio shall be 0.45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of 0.30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a non-conforming structures permit under Chapter <u>66</u> CDC.

(...)

Staff Finding 4: The lot is 19,001 sq. ft. and the habitable space after the two additions will be 2,730 sq. ft. for 14.4% FAR. This criterion is met.

CHAPTER 27, FLOOD MANAGEMENT AREAS

27.060 Approval Criteria

A. Development, excavation, and fill shall be performed in a manner to maintain or increase flood storage and conveyance capacity and not increase design flood elevations.

Staff Finding 5: The proposed additions will have finished floor elevations more than one foot above the base flood elevation of 48 feet as required by the CDC 27.080.A. The foundations for the proposed additions are below the BFE and will contain the required openings to allow for the conveyance of floodwater and to equalize hydrostatic flood force on the exterior walls. Gary M. Buford, registered professional civil engineer, provided a signed statement the proposal will have no impact on the flood storage capacity nor increase design flood elevations (see PD-4 Applicant's Submittal). This criterion is met.

B. No net fill increase in any floodplain is allowed. All fill placed in a floodplain shall be balanced with an equal amount of soil material removal. Excavation areas shall not exceed fill areas by more than 50 percent of the square footage. Any excavation below the ordinary high water line shall not count toward compensating for fill.

Staff Finding 6: FEMA Code of Federal Regulations (CFR) 44 CFR Parts 59, 60, 65, and 70 contain the federal regulations for the National Flood Insurance Program. The approval criteria within CDC Chapter 27 related to fill, excavation, certification and permitting are addressed in 44 CFR Parts 59, 60, 65 and 70; the CFR's contain more stringent standards. The conditions of approval require the applicant to demonstrate that the approval criteria for flood activities meets all federal standards (specifically those related to fill and no-rise certifications). The applicant has submitted an engineer's certification and analysis that the fill is miniscule and no increase in the base flood elevation as a result of the improvements. This criterion is met.

C. Excavation to balance a fill shall be located on the same lot or parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation shall be located in the same drainage basin and as close as possible to the fill site, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.

Staff Finding 7: FEMA Code of Federal Regulations (CFR) 44 CFR Parts 59, 60, 65, and 70 contain the federal regulations for the National Flood Insurance Program. The approval criteria within CDC Chapter 27 related to fill, excavation, certification and permitting are addressed in 44 CFR Parts 59, 60, 65 and 70; the CFR's contain more stringent standards. The conditions of approval require the applicant to demonstrate that the approval criteria for flood activities meets all federal standards (specifically those related to fill and no-rise certifications). The applicant has

submitted an engineer's certification and analysis that the fill is miniscule and no increase in the base flood elevation as a result of the improvements. This criterion is met.

(...)

F. Prohibit encroachments, including fill, new construction, substantial improvements, and other development in floodways unless certification by a professional civil engineer licensed to practice in the State of Oregon is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

Staff Finding 8: The subject property and proposed additions are located in the Special Flood Hazard Area (100-year floodplain), but outside of the floodway. This criterion is met.

G. All proposed improvements to the floodplain or floodway which might impact the floodcarrying capacity of the river shall be designed by a professional civil engineer licensed to practice in the State of Oregon.

Staff Finding 9: FEMA Code of Federal Regulations (CFR) 44 CFR Parts 59, 60, 65, and 70 contain the federal regulations for the National Flood Insurance Program. The approval criteria within CDC Chapter 27 related to fill, excavation, certification and permitting are addressed in 44 CFR Parts 59, 60, 65 and 70; the CFR's contain more stringent standards. The conditions of approval require the applicant to demonstrate that the approval criteria for flood activities meets all federal standards (specifically those related to fill and no-rise certifications). The applicant has submitted an engineer's certification and analysis that the fill is miniscule and no increase in the base flood elevation as a result of the improvements. This criterion is met.

27.070 Construction Materials and Methods

(...)

27.080 Residential Construction

A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to at least one foot above the base flood elevation.

Staff Finding 10: The proposed additions will have finished floor elevations more than one foot above the base flood elevation of 48 feet. The applicant shall submit a FEMA Elevation Certificate showing finished construction elevations prior to framing inspection by the building inspector (see Condition of Approval 1). This criterion is met.

B. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by

either a professional civil engineer or an architect licensed to practice in the State of Oregon, and must meet or exceed the following minimum criteria:

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

Staff Finding 11: The proposed rear addition is 1,051 sq. ft. located above an enclosed crawlspace. The size of the required flood vent openings shall meet the requirement of one square inch for every square foot of enclosed area and have two openings on at least two sides of the crawlspace foundation (see Condition of Approval 2). This criterion is met.

2. The bottom of all openings shall be no higher than one foot above grade.

Staff Finding 12: The proposed rear addition is 1,051 sq. ft. located above an enclosed crawlspace. The bottom of all flood vent openings shall be no higher than one foot above the highest grade, whether that be the interior or exterior (lowest adjacent) grade (see Condition of Approval 4). This criterion is met.

(...)

C. Crawlspaces.

(...)

4. Flood vent openings shall be provided on at least two sides that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. The total area of the flood vent openings must be no less than one square inch for each square foot of enclosed area. The bottom of each flood vent opening can be no more than one foot above the lowest adjacent exterior grade. For guidance on flood openings, see FEMA Technical Bulletin 1-93, Openings in Foundation Walls.

Staff Finding 13: FEMA Technical Bulletin 1 August 2008 Page 15 explains "Consider a crawlspace enclosure that has its interior grade higher than the exterior grade. As water rises against the outside of the foundation, the ground or fill on the interior balances the hydrostatic load (see Figure 10). It is only when the water rises above the interior grade that the lateral load becomes unbalanced and therefore must be equalized by openings. When viewed from the outside, a solid perimeter foundation wall or wall surrounding an enclosed area with the interior grade higher than the exterior grade will appear to not meet the installation requirements for openings. The openings will appear to be too high above the exterior grade (illustrated in Figure 7). Therefore, it is important that the final documentation of as-built elevations note the difference in interior and exterior grades. For example, if the NFIP Elevation Certificate is used, comments should explain that the interior grade is higher than the exterior grade and it should be noted whether the openings are (or are not) within 1 foot of the higher of the two grades."

The applicant shall document as-built elevations for the interior and exterior (lowest adjacent) grade and certify appropriately located flood vent openings for those locations where the interior grade is higher than the exterior grade (see Conditions of Approval 3 and 4). The applicant shall provide the appropriate sized flood vent openings on at least two sides of the crawlspace foundation (see Condition of Approval 2). This criterion is met.

(...)

6. Utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters. For further guidance on the placement of building utility systems in crawlspaces, see FEMA 348, Protecting Building Utilities From Flood Damage. Flood-resistant materials and utilities, access, and ventilation openings in crawlspaces are further addressed in this bulletin.

Staff Finding 14: FEMA Publication P-348 summarizes the NFIP requirements for building utilities that are detailed in Section 44 of the Code of Federal Regulations (CFR) Chapter 1, Section 60.3(a). The NFIP requires that all new and substantially improved structures located in floodprone areas be designed and constructed by methods and practices that minimize or eliminate flood damage to electrical, heating, ventilation, air conditioning, plumbing, and other building utility systems. The applicant shall elevate all building utilities above the base flood elevation or provide certification that the system used is a water tight enclosure (see Condition of Approval 5). This criterion is met.

7. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade (LAG).

8. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point. This limitation will also prevent these crawlspaces from being converted into habitable spaces.

Staff Finding 15: The applicant shall provide a certification with graphics showing the Lowest Adjacent Grade (LAG), the interior grade and the height of the crawlspace for the portion of the site below the base flood elevation. The applicant's engineer shall certify the interior crawlspace is no more than two feet below LAG and the below grade crawlspace measured from the interior grade to the top of the crawlspace foundation wall does not exceed 4 feet at any point (see Condition of Approval 3). These criteria are met.

(...)

27.140 Abrogation and Greater Restrictions

This chapter must be complied with in addition to any other applicable code provision, ordinance, statute, easement, covenant, or deed restriction. It is not intended to repeal any existing restriction. If any provision of this chapter and any other code provision, ordinance, easement, covenant, or deed restriction conflict or overlay, the provision containing the more stringent restriction shall prevail. All development within the Willamette River Greenway must comply with Chapter 28 CDC and all development within the Tualatin River Protection zone must comply with Chapter 28 CDC.

27.170 Consistency

Where the provisions of this chapter are less restrictive or conflict with comparable provisions of the zoning ordinance, regional, State, or federal law, the provisions that are more restrictive shall govern. Where this chapter imposes restrictions that are more stringent than regional, State and federal law, the provisions of this chapter shall govern.

Staff Finding 16: FEMA Code of Federal Regulations (CFR) 44 CFR Parts 59, 60, 65, and 70 contain the federal regulations for the National Flood Insurance Program. The approval criteria within Chapter 27 related to fill, excavation, certification and permitting are addressed in 44 CFR Parts 59, 60, 65 and 70; the CFR's contain more stringent standards. The conditions of approval require the applicant to demonstrate that the approval criteria for flood activities meets all federal standards (specifically those related to fill and no-rise certifications). The applicant has submitted an engineer's certification and analysis that the fill is miniscule and there will be no increase in the base flood elevation as a result of the improvements. These criteria are met.



PD-1 AFFADAVIT OF NOTICE

AFFIDAVIT OF NOTICE

We, the undersigned do hereby certify that, in the interest of the party (parties) initiating a proposed land use, the following took place on the dates indicated below:

GENI File No Develo Schedu	ERAL o. MIS-15-09 Applicant's Name Wild spment Name uled Meeting Decision Date 10-12-15	Art
NOTI 99.080	ICE: Notices were sent at least 28 days prior to the sche of the Community Development Code. (check below)	eduled hearing, meeting, or decision date per Section
TYPE	A	
Α.	The applicant (date)	(signed)
B. /	Affected property owners (date)	(signed)
£.	School District/Board (date)	(signed)
D.	Other affected gov't. agencies (date)	(signed)
E.	Affected neighborhoed assns. (date)	(signed)
F.	All parties to an appeal or review (date)	(signed)
/		
At/leas	t 10 days prior to the scheduled hearing or meeting, notic	e was published/posted:
Tiding	s (nublished data)	himat
City's v	website (posted date)	(signed)
SIGN		1
At loss	t 10 days prior to the scheduled bearing meeting or d	activities data a clean was posted on the property and
Section	199.080 of the Community Development Code.	ecision date, a sign was posted on the property per
(date)	10-1-2015 (signed) Na 5	ala
	(-8)	
NOTI 99.080	<u>CE</u> : Notices were sent at least 14 days prior to the sche of the Community Development Code. (check below)	duled hearing, meeting, or decision date per Section
TYPE	B	,
A.	The applicant (date) 9 - 28-15	(signed) J. Shiryev
B.	Affected property owners (date) 9-28-15	(signed) S. S. h. ny w
C.	School District/Board (date)	(signed)
D.	Other affected gov't. agencies (date) 9-28-15	(signed) 5. Sherry er
Е.	Affected neighborhood assns. (date) 9-28-15 AUL	(signed) 5. Shoyer
Notice Date:	was posted on the City's website at least 10 days prior to 9-28-15	the scheduled hearing or meeting. (signed) 5. 5 M M V
STAF	REPORT mailed to applicant, City Council/Planning O	Commission and any other applicable parties 10 days
prior to	the scheduled heaving.	
(date)_	(signed)	ZVV V
FINAL	<u>DECISION</u> notice mailed to applicant, all other part	ties with standing, and, if zone change, the County

<u>FINAL DECISION</u> notice mailed to applicant all other parties with standing, and, if zone change, the County surveyor's office. (date) $\frac{10-27-2015}{(signed)}$ (signed) $\frac{5}{2000}$

p:\devrvw\forms\affidvt of notice-land use (9/09)

PD-2 NOTICE MAILING PACKET

CITY OF WEST LINN NOTICE OF UPCOMING PLANNING MANAGER DECISION FILE NO. MIS-15-09

The West Linn Planning Manager is considering a request for a Flood Management Area Permit to allow additions to the existing home at 5650 River St.

The decision will be based on the approval criteria in Chapters 11, 27, and 99 of the Community Development Code (CDC). The approval criteria from the CDC are available for review at City Hall, at the City Library, and at http://www.westlinnoregon.gov/cdc.

You have received this notice because County records indicate that you own property within 300 feet of this property (Tax Lot 1608 of Clackamas County Assessor's Map 22E 30AC) or as otherwise required by Chapter 99 of the CDC.

All relevant materials in the above noted file are available for inspection at no cost at City Hall, and on the city web site <u>http://westlinnoregon.gov/planning/5650-river-street-flood-</u> <u>management-area-permit</u> or copies may be obtained for a minimal charge per page. A public hearing will not be held on this decision. Anyone wishing to present written testimony for consideration on this matter shall submit all material before <u>4:00 p.m. on October 12, 2015</u>. Persons interested in party status should submit their letter along with any concerns related to the proposal by the comment deadline. For further information, please contact Darren Wyss, Associate Planner, City Hall, 22500 Salamo Rd., West Linn, OR 97068, (503) 722-5512, dwyss@westlinnoregon.gov.

Any appeals to this decision must be filed within 14 days of the final decision date with the Planning Department. It is important to submit all testimony in response to this notice. City Council will not accept additional evidence if there is an appeal of this proposal. Failure to raise an issue in person or by letter, or failure to provide sufficient specificity to afford the decision-maker an opportunity to respond to the issue, precludes the raising of the issue at a subsequent time on appeal or before the Land Use Board of Appeals.





PLANNING MANAGER DECISION 2015-10-12

MIS-15-09: MAIL 9/28/15; WL TIDINGS: N/A

CITIZEN CONTACT INFORMATION

To lessen the bulk of agenda packets, land use application notice, and to address the worries of some City residents about testimony contact information and online application packets containing their names and addresses as a reflection of the mailing notice area, this sheet substitutes for the photocopy of the testimony forms and/or mailing labels. A copy is available upon request.

PD-3 COMPLETENESS LETTER



September 21, 2015

David Alt II Ninth Street Studio 10317 NE 9th Street Vancouver, WA 98664

RE: Completeness Check - MIS-15-09

Mr. Alt,

On August 20, 2015, the Planning Department received your application and materials for the Flood Management Area Permit at 5650 River St. The application has been found to be **complete.** The City has 120 days to exhaust all local review; that period ends on January 16, 2016.

Please be aware that a determination of a complete application does not guarantee a recommendation of approval from staff for your proposal as submitted – it signals that staff believes you have provided the necessary information for the Planning Manager to render a decision on your proposal.

The fourteen day public notice will be prepared and mailed. The notice will identify the earliest possible decision date by the Planning Manager.

Please contact me at 503-722-5512, or by email at <u>dwyss@westlinnoregon.gov</u> if you have any questions or comments.

Sincerely,

- Saly

Darren Wyss Associate Planner

PD-4 APPLICANT'S SUBMITTAL

West Linn

Planning & Development + 22500 Salamo Rd #1000 + West Linn, Oregon 97068 Telephone 503.656.4211 + Fax 503.656.4106 + westlinnoregon.gov

DEVELO	PMENT REVI	EW APPLI	CATION	
STATE CONTACT	FOR OFFICE H	AL IN A	<u>^</u>	
Darren Wyss	R	11-15-0	9	
NON-REFUNDABLE FEE(S) RE	FUNDABLE DEPOSIT(S	105000	TOTAL 105	000
Type of Review (Please check all that apply): Annexation (ANX) Historic F Annexation (ANX) Historic F Appeal and Review (AP) *	Review	1	Subdivision (SUB)	
Conditional Use (CUP)	djustment (LLA) */	/**	Time Extension *	
Design Review (DR)	rtition (MIP) (Prelim	inary Plator Plan) 🔲 Variance (VAR)	
Easement Vacation	forming Lots, Uses	& Structures	Water Resource Are	a Protection/Single Lot (WAP)
Extraterritorial Ext. of Utilities	Unit Development (PUD)	Water Resource Are	a Protection/Wetland (WAP)
Final Plat of Plan (PP)	cation Conference	(PA) -/		adn River Greenway (wrkg)
Hillside Protection & Erosion Control				
Home Occupation, Pre-Application, Sidewalk U different or additional application forms, avail	Use, Sign Review Pe able on the City we	ermit, and Tem ebsite or at City	oorary Sign Permit appli Hall.	cations require
Site Location/Address:			Assessor's Map No	.: 22E30AC01608
			Tax Lot(s):	· · · · · · · · · · · · · · · · · · ·
WEST LINN, OR. 97000			Total Land Area:	.44 ACRES
Brief Description of Proposal: ADDITIONS 1 1- 21 SQ. 2- 1,051 SQ.	o existing re ft. Entry add ft. Rear add	SIDENCE: MION (NOR MION (SOUT	ГН) 'Н)	
Applicant Name: David L. AILT dress: 10317 NE 9405t.	North Sti	rect Studi	6 Phone: 360 Email:	-597-4499
City State Zip: Voin conver, Wa	98664		dalt	e ninth streets was
Owner Name (required): (please print) Address: TRENT & MI LYNN CROL	LARD	dan karan dan karan dan karan dan m	Phone: 503 Email:	,-896-6606
City State Zip: WEST LINN, OR 97068	x		trentcrollard	d@msn.com
Consultant Name Gary Buford			Phone: 503	-635-3511
Address: 415 N. State St	rect		Email:	stor and in
City State Zip: Lake Oswego,	012 9703	4	Bufordasso	ciares egrall.com
 All application fees are non-refundable (excluding The owner/applicant or their representative shouting A denial or approval may be reversed on appeal. Three (3) complete hard-copy sets (single sided) One (1) complete set of digital application materials 	deposit). Any over d be present at all no permit will be i of application mat ials must also be s please submit only	erruns to depos l public hearing n effect until th terials must be submitted on Cl r two sets.	it will result in additio s. ne appeal period has ex submitted with this ap D in PDF format.	nal billing. pired. plication.
* No CD required / ** Only one hard-copy set ne	eded			
The undersigned property owner(s) hereby authorizes the comply with all code requirements applicable to my applica to the Community Development Code and to other regulat Approved applications and subsequent development is not	filing of this application of this application. Acceptance of ions adopted after the vested under the pro-	on, and authorize this application of e application is a ovisions in place a	is on site review by author loes not infer a complete s pproved shall be enforced at the time of the initial ap	ized staff. I hereby agree to ubmittal. All amendments where applicable. plication.
Devi Lulta	8-4-15		A	8 4 15
Applicant's signature	Date	Owner's sig	nature (required)	Date
evel gment Review Amplitation (Jev., 101–107)	*8-	-9 siven	/ not intake	JG 2 0 2015

LINN



July 23, 2015

Mr. Peter Spir Associate Planner 22500 Salamo Rd West Linn, OR 97068

Subject:	Flood Management Area permit -
	West Linn Community Development Code,
	Ch 27, Flood Management Areas
	Written responses to sections 27.060, 27.070 and 27.080

Applicant: Ninth Street Studio 10317 NE 9th St.Vancouver, WA 98664

> Contact: David Alt II 360-597-4499 <u>dalt@ninthstreetstudio.com</u>

Property	Trent & Mi Lynn Crollard		
Owners:	5650 River Street	West Linn, OR 97068	

Property: 5650 River Street West Linn, OR 97068

Project Description:

Proposed additions to the existing residence:

- A 21 sq.ft. addition at the front of the existing house (north) and below the existing roof overhang and over the existing outdoor entry area to facilitate a new entryway.
- A 1,051 sq.ft. addition at the rear of the existing house (south) to facilitate a new Master Bedroom, Master Bathroom, Office and Living Room.

Permit approvals sought by the applicant:

Flood Management Area Permit

Responses to:

West Linn Community Development Code, Ch 27, Flood Management Areas Sections 27.060, 27.070 and 27.080.

27.060 Approval Criteria

A. Development, excavation and fill shall be performed in a manner to maintain or increase flood storage and conveyance capacity and not increase design flood elevations.

Response: The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition are to be located at the existing first floor elevation which is at an elevation of 49.26' (per attached Buford Associates Survey of Elevations dated November 8, 2012) and greater than 1' above the BFE of 48.00 (per current FEMA map #41005C0276D dated June 17, 2008), both based on NAVD 1988 datum. The only excavation required is for the new perimeter footings required for the additions. There will be minor fill required to



reduce the crawl space as required (as shown on attached drawing 3). As verified with the Civil Engineer's submittal, the new development will not significantly increase design flood elevations.

B. No net fill increase in any floodplain is allowed. All fill placed in a floodplain shall be balanced with an equal amount of soil material removal. Excavation areas shall not exceed fill areas by more than 50 percent of the square footage. Any excavation below bankful stage shall not count toward compensating for fill.

Response: Minor fill is required only to reduce the crawl space depth as required (as shown on attached drawing 3). The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition will be above existing grade. As verified with the Civil Engineer's submittal, the new development will not significantly increase design flood elevations.

C. Excavation to balance a fill shall be located on the same parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation shall be located in the same drainage basin and as close as possible to the fill site, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.

Response: No work is required on any other parcels of land. The proposed additions are on a single family residential home and both additions will be above the existing grade. The minor excavation required for these foundations will not increase flood impacts for surrounding properties. The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition have no impact to the surrounding properties as verified with the Civil Engineer's submittal.

D. Minimum finished floor elevations must be at least one foot above the design flood height or the highest flood of record, whichever is higher, for new habitable structures in the flood area.

Response: The residence located at 5650 River Street is an existing residence. The proposed additions do not create a new habitable structure. The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition shall remain at the existing 49.26' finish floor elevation, greater than 1' above the 48.00' BFE.

E. Temporary fills permitted during construction shall be removed.

Response: No temporary fill is required during construction.

F. Prohibit encroachments, including fill, new construction, substantial improvements, and other development in floodways unless certification by a professional civil engineer licensed to practice in the State of Oregon is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

Response: The total footprint for the new additions is 1,072 sq.ft. Each of the areas meet all standard zoning requirements and will not encroach on any adjacent properties and not have an effect on flood levels during the occurrence of the base flood discharge.



G. All proposed improvements to the floodplain or floodway which might impact the flood-carrying capacity of the river shall be designed by a professional civil engineer licensed to practice in the State of Oregon.

Response: No improvements are proposed to the floodplain or floodway other than minor fill as required to reduce the crawl space depth as required (as shown in attached drawing 3). As verified with the Civil Engineer's submittal, the new development will not significantly impact the flood-carrying capacity of the river.

H. New culverts, stream crossings and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in flood management areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.

Response: No culverts, stream crossings or transportation projects are part of the scope of work with this proposal.

1. Excavation and fill required for the construction of detention facilities or structures, and other facilites such as levees, specifically shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable land.

Response: The project includes small additions to an existing single family residence. Detention facilities, levees, etc. are not required with the proposed scope of work.

J. The applicant shall provide evidence that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required. (Ord. 1522, 2005; Ord. 1635 § 15, 2014; Ord. 1636 § 25, 2014)

Response: The only other permit required is a building permit to be issued by the City of West Linn. No state or federal review is required for this project.

27.070 Construction Materials and Methods

A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage using methods and practices that minimize flood damage.

Response: The existing main floor is more than 1' above the BFE of 48.00' which is based on the NAVD 1988 datum. All new construction below an elevation of 48.00' shall meet flood damage resistant material requirements including but not limited to pressure treated lumber and exterior grade plywood sheathing.

B. Electrical, heating ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

Response: All electrical and mechanical equipment will be either located above BFE, or designed and installed to prevent water from entering or accumulating within



the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in compliance with the flood-resistant construction requirements of the building code. All new mechanical ductwork will be provided above the ceilings in the attic spaces, above the BFE.

C. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

Response: The existing residence utilizes the public utility system. No on-site supply systems are part of the proposed scope of work. Improvements to the existing water supply system shall be installed so that floodwaters do not enter or accumulate within system components and to additionally ensure that floodwater does not contaminate the potable water supply system. Those systems shall be water tight. All new faucets, hose bibs, etc. shall be located above the BFE or utilize a backflow system to eliminate contamination of the potable water system.

D. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.

Response: The existing residence utilizes the public sewer system. No on-site sewer systems are part of the proposed scope of work. Two existing bathroom toilets, two existing bathroom sinks, One existing bath/shower and an existing kitchen sink will be re-located within the existing footprint to remain within the existing footprint. One new bathroom sink, one new bar sink, and one new laundry sink will be added within the existing residence. One new toilet, two new bathroom sinks, one new shower and one new tub will be added within the new (south) addition. All new sanitary sewage improvements will be installed to minimize or eliminate infiltration of floodwaters into the system and discharge into flood waters as required.

E. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Response: The existing residence utilizes the public sewer system. No on-site sewer systems are part of the proposed scope of work.

F. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

Response: All new walls at the proposed additions shall be anchored to the new foundations with hold downs to prevent foundation, collapse, or lateral movement of the structure. An Oregon licensed Structural Engineer shall determine all anchoring requirements.

27.080 Residential Construction

A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to at least one foot above the base flood elevation.

Response: The residence located at 5650 River Street is an existing residence and is already located more than 1' above the base flood elevation (BFE = 48.00', existing

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floor elevation is at 49.26') The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition must all remain at the same height as the existing floor elevation to allow for a functional layout. All new living space additions shall match the existing finish floor elevation of 49.26' which is greater than 1' above the BFE.

B. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by either a professional civil engineer or an architect licensed to practice in the State of Oregon, and must meet or exceed the following minimum criteria:

Response: Gary Buford, Professional Civil Engineer licensed to practice in the State of Oregon has certified the proposed design per his attached letter.

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

Response: All new crawlspaces below the additions will meet or exceed the opening requirement with foundation vents in addition to vented crawl space access points.

2. The bottom of all openings shall be no higher than one foot above grade.

Response: The foundation vents will be located more than 1' above grade. (as shown in attached drawing 3).

3. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

Response: The foundation vents and vented crawl space access points will have screens to code to prevent rodents, etc. from entering but will not prevent the flow of water from the crawlspace area.

4. Fully enclosed areas below the base flood elevation shall only be used for parking, access and limited storage.

Response: No new enclosed areas other than crawlspaces are part of the proposed scope of work, and will only be used for crawl space access.

5. Service equipment (e.g. furnaces, water heaters, washer/dryers, etc.) is not permitted below the base flood elevation.

Response: Existing furnace and water heater will be upgraded as necessary to handle the new proposed work. There is an existing washer & dryer. All new service equipment will be located above the base flood elevation of 48.00' as required.



6. All walls, floors and ceiling materials located below the base flood elevation must be unfinished and constructed of materials resistant to flood damage.

Response: The residence at 5650 River Street is an existing residence. The proposed 21 sq.ft. (north) entryway addition and 1,051 sq.ft. (south) Master Bedroom/ Master Bathroom/ Office / Living Room addition must all remain at the same height as the existing floor elevation for a functional layout. All new structural materials and finish materials required at the proposed additions below the BFE elevation of 48.00' shall meet the FEMA Flood damage resistant material requirements.

- C. <u>Crawlspaces</u>. Crawlspaces are a commonly used method of elevating buildings in special flood hazard areas (SFHAs) to or above the base flood elevation (BFE), and are allowed subject to the following requirements:
 - 1. The building is subject to the Flood-Resistant Construction provisions of the Oregon Residential specialty Code.

Response: All parts of section 322, Flood Resistant Construction of the ORSSC shall be met at the proposed additions.

2. They shall be designed by a professional engineer or architect licensed to practice in the State of Oregon to meet the standards contained in the most current Federal Emergency Management Agency's (FEMA) Technical Bulletin.

Response: An Oregon licensed Structural Engineer Licensed to practice in the State of Oregon shall design to meet the standards contained in the most current Federal Emergency Management Agency's (FEMA) Technical Bulletin.

3. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of bouncy.

Response: All new walls at the proposed additions shall be anchored to the new foundations with hold downs to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effect of bouncy. An Oregon licensed Structural Engineer shall determine all anchoring requirements.

4. Flood vent openings shall be provided on at least two sides that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. The total area of the flood vent openings must be no less than one square inch for each square foot of enclosed area. The bottom of each flood opening can be no more than one foot above the lowest adjacent exterior grade. For guidance on flood openings, see FEMA Technical Bulleting 1-93, Openings in Foundation Walls.

Response: All new crawlspaces below the additions will meet or exceed the opening size requirement with foundation vents in addition to vented crawl



space access points. The foundation vents and vented crawl space access points will not be more than 1' above the lowest exterior adjacent grade (as shown in attached drawing 3).

5. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls (studs and sheathings), but also any joists, insulation, or other materials that extend below the BFE. For more detailed guidance on flood-resistant materials see FEMA Technical Bulletin 2-93, Flood-Resistant Materials Requirements.

Response: All new structural materials and finish materials required at the proposed additions below the BFE 48.00' shall meet the FEMA Flood damage resistant material requirements through the use of concrete at foundations, pressure treated lumber and exterior grade plywood at framing and non-paper faced gypsum wall board, and all other Flood damage material requirements.

6. Utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters. For further guidance on the placement of building utility systems in crawlspaces, see FEMA 348, Protecting Building Utilities From Flood Damage. Flood-resistant materials and utilities, access and ventilation openings in crawlspaces are further addressed in this bulletin.

Response: No utility systems are required in any of the crawlspaces in the proposed additions, nor will be placed below the BFE. FEMA requirements shall be met.

7. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade (LAG).

Response: No part of the interior grade within the proposed new crawlspace will be more than 2' below the adjacent exterior grade.

8. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point. This limitation will also prevent these crawlspaces from being converted into habitable spaces.

Response: The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the foundation wall will not exceed four feet at any point (as shown in attached drawing 3).

9. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. Possible options include natural drainage through porous, well-drained soils and drainage systems such as low-point drains, perforated pipes, drainage tiles, or gravel or crushed stone drainage by gravity. ninthstreetstudio.net 10317 ne 9th st Vancouver, WA 98664 p 360 597 4499 m 360 904 9663

> Response: New proposed crawl spaces require minor fill to meet the max. crawl space requirement. This places the vents below the interior crawl space grade thereby allowing the crawl space to naturally drain by gravity (as shown in attached drawing 3). A minimum of (2) Foundation vents will also be provided at all proposed crawlspaces which are fully enclosed.

10. The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace. For velocities in excess of five feet per second, other foundation types should be used.

Response: The crawlspaces below the proposed additions shall be concrete stem walls over concrete spread footings. Those foundations systems shall meet the requirements of ch. 4 of the ORSC as required by R322.2.3 – foundation design and construction of the Flood Resistant Construction section of the ORSC and shall be designed by an Oregon licensed Structural Engineer Licensed to practice in the State of Oregon to resist the expected velocities at the site.

11. For more detailed information, refer to FEMA Technical Bulletin 11-01 or the most current edition.

Response: The FEMA technical bulletin 11-01 has been reviewed and its requirements will be provided on the permit documents. All parts of the proposed additions below the BFE 48.00' shall meet those requirements.

12. The use of below-grade crawlspaces to elevate the building to one foot above the BFE may cause an increase in flood insurance premiums, which are beyond the control of the City.

Response: No crawl spaces are proposed to be below grade. The home owners currently have flood insurance and shall coordinate directly with their provider when necessary.

D. A poured slab placed over fill can be used to elevate the lowest floor of a structure above the base flood elevation. However, when a building site is filled, it is still in the floodplain and no basements are permitted.

Response: No basements are part of the scope of work.

E. Placing a structure on piers, piles and posts is allowed provided supporting members are designed to resist hydrostatic and hydrodynamic forces. (Ord. 1565, 2008)

Response: Perimeter concrete spread footings shall be used at the proposed additions. -- end --

Thank you! Sincerely,

David Lidt

David Alt II Principal



GENERAL NOTES:

- 1. THE 100 YEAR FLOODPLAIN ELEVATION AT THE EXISTING SITE LOCATED AT 5650 RIVER STREET IS 48.00' PER NAVD 1988.
- 2. THIS ELEVATION IS BASED ON THE FEMA FLOOD INSURANCE RATE MAP, MAP NUMBER 41005C0276D DATED JUNE 17, 2008.
- 3. THE EXISTING FIRST FLOOR FINISH ELEVATION AT THE EXISTING RESIDENCE IS 49.26' PER NAVD (1988).
- 4. THE EXISTING GARAGE SLAB ELEVATION AT THE EXISTING RESIDENCE IS 48.09'.
- 5. ALL NEW CONSTRUCTION FOR THE PROPOSED ADDITIONS BELOW AN ELEVATION OF 49.00' SHALL MEET FLOOD DAMAGE RESISTANT MATERIAL REQUIREMENTS.
- 6. ALL ELEVATIONS NOTED ON THIS SITE PLAN ARE BASED ON NAVD 1988 DATUM





CROLLARD - FLOOD MANAGEMENT PERMIT APP.

DATE: JULY 23, 2015 PROJECT #: 15-003.CROLLARD dalt@ninthstreetstudio.com



street studio CROLLARD - FLOOD MANAGEMENT PERMIT APP. DATE: JULY 23, 2015 PROJECT #: 15-003.CROLLARD dalt@ ninthstreetstudio.com



CROLLARD - FLOOD MANAGEMENT PERMIT APP.

studio

PROJECT #: 15-003.CROLLARD dalt@ ninthstreetstudio.com



BUFORD ASSOCIATES, INC.

415 NORTH STATE STREET - LAKE OSWEGO, OR 97034

civil engineers / land surveyors
Phone (503) 635-3511

August 3, 2015

Rec No. L1620.17 File: L1620 WL Planning

Mr. Peter Spir, Associate Planner CITY OF WEST LINN 22500 Salamo Road West Linn, OR 97068

RE: FLOOD MANAGEMENT Crollard Residence 5650 River Street West Linn, OR 97068

Dear Mr. Spir:

The purpose of this letter is to provide a Registered Professional Civil Engineer opinion as to impact on the flood plain elevation which might be caused by additions to the subject residence as proposed by David Alt, Ninth Street Studio in Vancouver, Washington. I have reviewed the Flood Management Area Permit submittal of David Alt, dated July 23, 2015, which addresses Sections 27.060, 27.070 and 27.080, Chapter 27 of the West Linn Community Development Code relevant Flood Management.

Pertaining to items F and G, Section 27.060 of Chapter 27, there is no significant encroachment by the proposed residential improvements within the floodway or active flood fringe of the flood plain. Also, pertaining to item B.1 of Section 27.080, David Alt has stated that the "opening requirement for foundation vents" will be met or exceeded.

The part of the subject property fronting River Street is generally above the 100-year flood plain elevation; however, the ground slopes downward in a southwesterly direction from the street, see drawing titled "Survey of Elevations, Lot 8, Arbordale. Accordingly, much of the property away from the street is below flood plain elevation; and, FEMA mapping appears to indicate that flood waters may enter and exit the property from the north, within a drainage swale near the back line of the property.

The volume of the proposed improvements of Ninth Street Studio within the flood plain are minuscule in comparison to the total volume of the floodway and flood fringe in the cross-section of the river at the subject property. Calculations are not necessary to say that there will be no increase in flood plain elevation as a result of the proposed residential improvements.

As a Registered Professional Engineer in the State of Oregon, this letter serves to certify that the base flood (100-year) elevation will not be affected by the proposed residential improvements. Accordingly, I trust this will be adequate certification for the City of West Linn.

Sincerety Buford, P.E., P.L.S.

Date of Renewal: 12/31/2015 B

PD-5 PUBLIC COMMENTS

No public comments were received.